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The development potential of migration

The Status Quo, Lessons from Other Regions, and Implications for Research

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Migration may be triggered by one or more factors including economic issues such as relative economic stagnation or decline, environmental fluctuations that would include climate change and negative changes in weather conditions, political volatility, and social concerns for example, conflicts and other forms of social instability.

This issue of the Thematic Research Notes discusses the causes and impact of migration among communities in Africa as well as predicted future migration trends. Historically, economic and social factors, in particular, differences in GDP growth and armed conflict, have had the greatest impact on migratory flows (Naudé). The role of environmental factors, such as anomalies in temperature and rainfalls, and how they affect the land and subsequent decisions to migrate from rural areas to urban centers and across national borders, is examined by Maystadt.

Independent of its root causes, migration has strong implications for both communities of origin and destination. Where it is a response to rural pressures, migration can either alleviate or aggravate such stresses. The outcome depends on whether it hinders access to labor and investment resources or plays a role of assurance among rural areas of origin, together with related implications for technology adoption and changes in rural wages (de Brauw; Gubert). Furthermore, there are indications that migration destination (continental or international) affects certain economic activities and that there is an ultimate impact on the rural economy (Wouterse). At the macroeconomic level, the issue of brain drain vs. brain gain is often mentioned in discussions of the cost and benefits of migration (Lucas).

The findings presented in this issue include some surprises: Net migration from Africa, excluding North Africa, has been the lowest among all developing regions and has not changed since 2005; economic improvement and increased political stability are likely to further slowdown and perhaps even reverse migration, turning Africa into a net destination; most future environment induced migration is likely to be intra-African between coastal and inland countries, with flows in both direction, driven by regional differences.

In sum, whether continental or intercontinental, driven by environmental, economic, or social factors, migration is a long term phenomenon that needs to be better understood and managed. This issue is a contribution to the debate that needs to take place.

Ousmane Badiane, Director for Africa, IFPRI

UNDERSTANDING MIGRATION TO AND FROM AFRICA SOUTH OF THE SAHARA

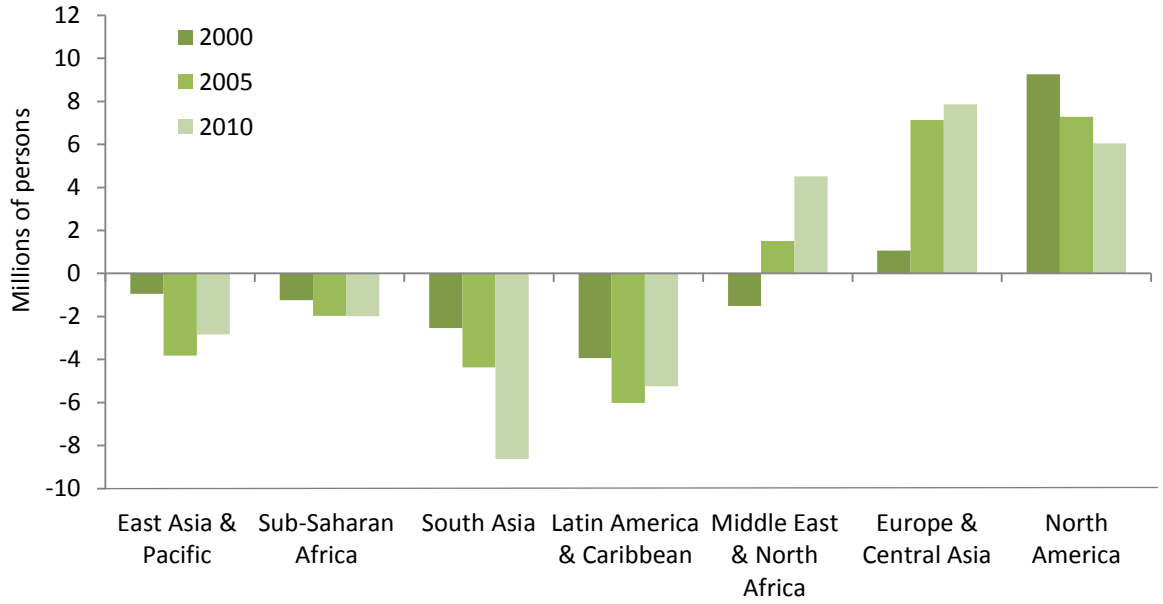
Wim Naudé

Emigrants from Africa south of the Sahara have made significant large contributions to human civilization and development. Much of the earliest out-migration from Africa was driven by environmental pressures and opportunities, such as seasonal variations in weather and climate change.

Recent migration might be the result of conflict in Africa countries south of the Sahara, implying that much of Africa's migration is "forced." This type of migration leads to destruction of physical capital as well as displacement of human capital. During the 1980s, the continent experienced a rising trend in civil wars with particularly protracted conflicts in Angola, DRC, Ethiopia, Mozambique, Somalia and Sudan. As a result Africa today is one of the continents with the largest numbers of refugees and internally displaced persons – about 1 out of 3 refugees worldwide are in Africa. These conflicts, together with decades of economic stagnation, and increasing environmental pressures, have led to a brain drain from the continent: more than 23,000 university graduates and 50,000 executives emigrate from Africa annually and there were around 135,000 African born health sector professionals working in developed countries in 2000.

While this brain drain is not unexpected in light of the conflict and economic situation many African countries have been faced with, official rates of out-migration from Africa south of the Sahara have been surprising low when compared to other regions. Figure 1 depicts the rates of net migration (immigration minus emigration) in various world regions between 2000 and 2010. It shows that over this recent period that net migration was lowest in the case of Africa south of the Sahara – out-migration from South Asia, Latin America, and East Asia were much higher. Moreover, immigration tended to occur into Europe and Central Asia, and North America. Net migration was low in Africa south of the Sahara and more stable compared to other regions with little change between 2005 and 2010. This may just be a temporary reflection of a period of good growth for Africa due to commodity booms, rising foreign investment, decline in many (but not all) conflicts, and a period, at least since the 2008 crisis in the West, during which the attractiveness of migration to Europe has started to wane as jobs have become scarcer and entry more difficult.

Figure 1 - Net Migration, 2000 – 2010



Source: World Bank

Despite these low rates of net migration from Africa, some have warned "African emigration pressure is building up dramatically" (Hatton and Williamson 2001). To understand whether there is substance to this warning and whether Africa south of the Sahara will continue to suffer from net out-migration and the brain drain in the future, it is crucial to better understand the determinants of migration from the continent, limited until fairly recently by a lack of quantitative studies. One recent attempt to rectify this is by Naudé (2010), using data (made available by the UN Population Division) on net migration for 45 African countries for 10 five-year periods, from 1960 to 2005, and employing a dynamic panel data estimator, found that, in broad terms, armed conflict and differences in GDP growth have the greatest impact on international migration from Africa. An additional period of conflict will raise emigration by 1.7 per 1,000 inhabitants, while 1 percent GDP growth will reduce emigration by 1.5 per 1,000. Hence, international migration from Africa remains, as in the past, largely forced in nature.

The roles of natural hazards and more gradual environmental degradation, and pressure on natural resources are more difficult to discern, despite the claim by many that environmentally forced migration is significant in Africa. Statistical analyses show no direct evidence that environmentally forced migration is significant at the macro-level. Tentative evidence, however, suggests that natural disasters may act as a trigger for conflict in Africa, so that environmental factors may indirectly drive international migration. Further research is needed in this regard. With prospects of peace and economic development recently improving in Africa, the fears of an increased out-migration from Africa seem difficult to sustain. Given its huge natural resource endowments, tourism potential, and improved macroeconomic governance, a reduction in conflicts could significantly reduce out-migration. Moreover, greater stability and a strengthening of institutions could, and should make Africa more desirable as a destination for highly skilled immigrants from the rest of the world, particularly as the West experiences prolonged recession.

THE IMPACT OF WEATHER ANOMALIES ON MIGRATION IN AFRICA SOUTH OF THE SAHARA

Jean-Francois Maystadt

Weather shocks can be roughly hypothesized to have two effects on migration. First, countries strongly dependent on the agricultural sector will experience a fall in rural wages in the case of sustained negative weather changes. This brings forth incentives for rural–urban migration. At the same time, a direct (amenity) effect, which is related to the possible spread of disease or a higher probability of death from flooding or excessive heat waves, induces incentives for urban–international migration. Second, the inflow of agricultural workers into the urban sector pushes urban wages down and gives further (economic) incentives for urban–international migration. The inflow of environmental migrants reduces average wages in the foreign country, and the economy moves back into a new equilibrium, where we now can see increasing urbanization in a country that has experienced worsening weather conditions and falling rural population, due to lower total population resulting from international migration.

Results from a cross-country panel of countries in Africa south of the Sahara (henceforth referred to as Africa), through a system of equations confirm the existence of both direct (amenity) and indirect (economic incentives and urbanization changes) effects of weather anomalies on international migration.

Table 1 – Direct and indirect effects of weather anomalies on international migration

Regressions	(1) First-stage	(2) First-stage	(3) Second-stage
Models	Fixed effects two-stage least squares		
Dependent variable	GDP ratio	Urbanization	Net migration rate
Rainfall anomalies	-0.023	-0.003	0.843
Temperature anomalies	-0.043***	-0.020**	2.841**
Rainfall anomalies*agricultural dependence	0.049***	0.002	-1.258
Temperature anomalies*agricultural dependence	0.008	0.045***	-4.253**
Log (GDP pc/GDP pa^{ct})			21.58***
Log (Urbanization)			67.51***
Observations	750	750	750
Number of countries	39	39	39

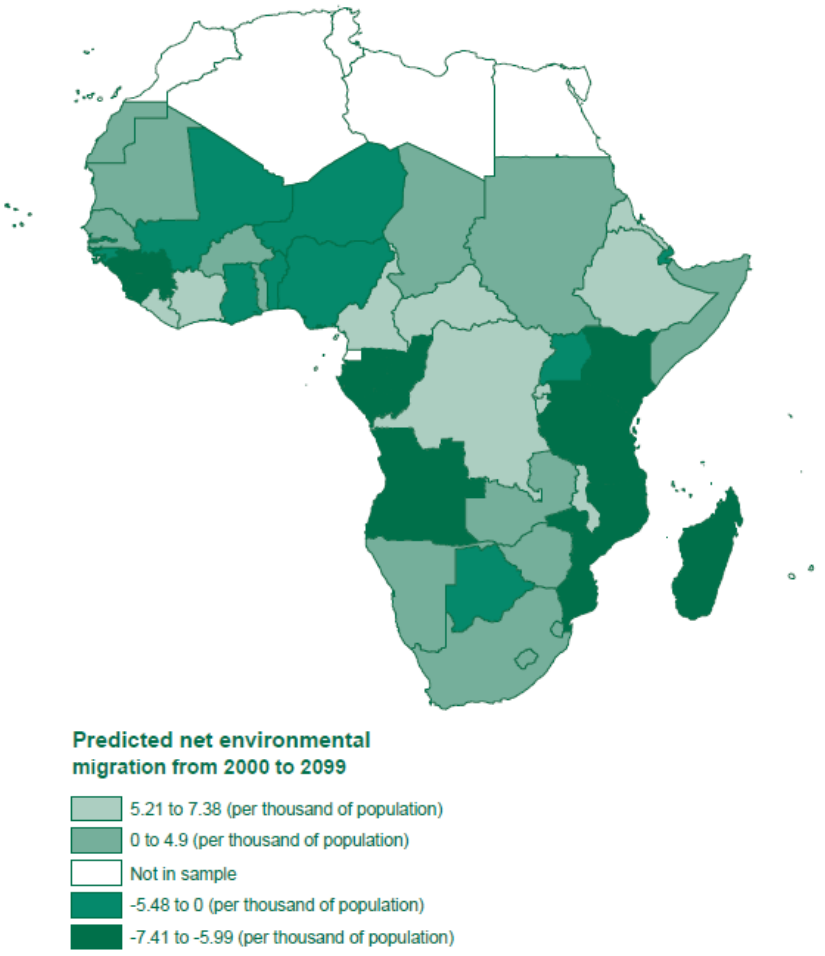
Source: Author Calculations.
Notes: **significant at 1 percent, GDP ratio is measured as the logarithmic transformation of the ratio of per capita domestic GDP pc and GDP per capita in neighboring countries. Weather anomalies are computed as deviations of annual rainfall and temperature from the country's long-term mean (defined between 1901 and 2000), divided by its long-run standard deviation. Country-fixed effects, time and regional-time dummies as well as other control variables are included in the regressions.

African countries that have a large agricultural sector appear to be particularly vulnerable. Weather anomalies increase the economic incentives to migrate out of one's country of origin and strengthen the urbanization process especially in agricultural dependent countries (positive effects of the relative GDP per capita and the level of urbanization). Temperature anomalies in general and rainfall anomalies in agricultural dependent countries respectively decrease and increase GDP per capita and in turn, increase the incentives to out-migrate (see columns 1 and 3 in Table 1).

Temperature anomalies also strengthen the urbanization process in agriculturally-dominated countries. Given the productivity gains associated with urban concentration, increased urbanization softens the impact of weather anomalies on international migration. Overall, these results suggest that weather anomalies raise the incentives to migrate to another country.

Although until now, the phenomenon of environmental migration in Africa appears to be limited to an estimated net number of 128,000 migrants per year over the period 1960–2000, which represents 0.3 percent of the population, in the future this phenomenon may magnify. Estimates of the impact of weather anomalies on the future rate of migration in Africa, using the climate projections described in the Fourth Assessment Report (AR4) of the United Nations Intergovernmental Panel on Climate Change (IPCC), show that an additional 0.121 to 0.532 percent of the African population will be induced to migrate annually due to varying weather conditions toward the end of the 21st century. Applying these future migration rates to UN projections of population changes yields, in net terms, a figure of an additional 2.9 million environmental migrants every year for the period 2080-2099 compared to the period 1980-1999 in the low-fertility/best-weather-change scenario. The results are an additional 25 million migrants in the high-fertility/worse-weather-change scenario. Under moderate scenarios, in terms of both climate and population changes, future weather anomalies could lead to an additional displacement of 5 to 24 million people every year by the end of the 21st century. While there has been a long tradition of migration to the coastal areas in Africa, these locations could experience a significant proportion of their population fleeing toward the African mainland due to weather changes by 2099 (Figure 2).

Figure 2 – Projected net environmental migrants per thousand of population 2000-2099



Source: Marchiori, Maystadt, and Schumacher (2012)

In Western Africa, the most affected countries include Benin, Ghana, Guinea, Guinea-Bissau, Nigeria, and Sierra Leone; in Eastern Africa, Kenya, Madagascar, Mozambique, Tanzania, and Uganda; in Southern Africa, Angola and Botswana; and in Central Africa, Congo and Gabon.

These results impose serious and challenging questions for policy makers. African countries only account for approximately five percent of world emissions and if one believes the academic literature and the works of the IPCC in that weather anomalies may be human-induced, these variations are nearly exclusively driven by the developed world. This externality thus imposed on African countries requires international attention based on equity and fairness criteria. In this respect, the recent advances presented in the Cancun Agreement provide a good starting point. However, one of the important components of the Cancun Agreement, namely Nationally Appropriate Mitigation Actions, will not be a useful policy tool for Africa due to the relatively low total emissions. Future policies should therefore focus more closely on adaptation policies, for example by making crops less sensitive to weather anomalies.

POTENTIAL EFFECTS OF MIGRATION ON PRODUCTION IN RURAL AREAS

Alan de Brauw

Since the seminal contribution of Lewis (1954), migration of labor out of agriculture has become considered a primary feature of the economic development process (see De Haan (1999) and Taylor and Martin (2001) for a review of the literature). However, the potential effects of migration on agricultural and other rural production activities can be quite complex. Migrants typically continue to have economic interactions with the source households and communities they leave behind (Stark and Bloom 1985), and these interactions are particularly important when markets do not function well. Therefore, migration may have direct effects on agricultural production in source communities. If rural markets are well functioning, the effects of migration on agricultural production should be minimal. Households that send out migrants would be able to hire labor to substitute for the labor that migrants would have provided on the farm, and if necessary households could borrow money for inputs prior to production. However, if land, labor, or credit markets in rural areas are incomplete, migration could have either positive or negative effects on household production. For example, if households cannot substitute for migrant labor, the loss of that labor could cause agricultural production to decrease. Alternatively, households might use less labor-intensive technologies, or they might substitute land-intensive for labor-intensive crops. If households lack access to liquidity or credit, migrant remittances may help relax other constraints on agricultural production; as a result, household production or productivity may rise with migration. Therefore, the possible effects of migration on agricultural production are theoretically indeterminate and likely depend upon constraints and the relative values of specific inputs.

To illustrate more fully, consider that a household has fixed resources which it can invest in either a low-productivity or high-productivity technology to produce a given good. Assume further that at prevailing relative prices, the household would specialize in the high productivity technology, which simply means that the household would invest all of its resources in the high productivity technology. Consider, however, that the household faces one of several different potential constraints on investing in the high productivity technology such as credit or liquidity constraint, or high risk intolerance. In any of these cases, the constraints would induce the household to produce a lower amount of the good using the high productivity technology and more of it using the low productivity technology. Overall productivity and profits would consequently be lower than they would be if the household was not constrained at all.

Now, if the household chooses to send out a migrant or migrants, there are potentially competing effects on production. Migration could tighten the constraint by reducing the available labor for investing in the high productivity technology. On the other hand, migrant remittances could relax the constraint either by providing liquidity to the household or by being willing to remit in case of an agricultural shock or otherwise induced production related loss of income, thus raising the level of risk tolerance. In general, the overall impact of migration on agricultural production or productivity is therefore indeterminate, and the direction of the impact becomes an empirical question. Where this question has been studied, results vary significantly by context. Rozelle, Taylor, and de Brauw (1999) find a negative correlation of migration with maize yields in northern China, but they find a positive correlation with remittances. De Brauw (2010) finds a net positive impact of migration and remittances on agricultural production in general in Vietnam. Damon (2010), on the other hand, finds that households in El Salvador use migrant remittances as a main income source and move from high value production to subsistence crops. Similarly, Miluka et al. (2010) find that households in Albania use migration as a vehicle to leave agriculture entirely. For Africa, Wouterse and Taylor (2008) find that inter-continental migration, which tends to be long-term and generates significantly larger remittances, stimulates livestock production while being negatively associated with more labor-intensive activities - subsistence cropping and nonfarm employment.

MIGRATION AND ECONOMIC DEVELOPMENT IN AFRICA

Robert EB Lucas

The effects of migration on economic development in countries of origin vary from context to context. Much depends on the nature and composition of migration, the economic environment in the sending countries (or countries of origin), and the experience of migrants while away. Largely, effects of migration on source economies may be categorized according to the level of remittances, the skill level of the migrant and the duration of migration.

The combination of income and foreign exchange availability, poverty relief, and external financing is directing a great deal of attention toward remittances and how they can be encouraged. The effects of remittance receipts on domestic macroeconomic performance, however, remain a subject of debate. The potential effects are well known and mixed. On the positive side are expanded savings and investment, plus the multiplier stimulus effects from added spending. On the negative side is the potential for diminished labor supply and effort induced by higher transfers, together with a Dutch disease–like effect or pressure on domestic currencies in sending countries towards overvaluation, which discourages the production of tradable goods and slows down growth. The more tenable analyses tend to indicate a positive effect of remittances on overall investment levels or a significant expansionary effect from remittance spending.

The brain drain issue centers not on whether the departure of highly skilled or particularly bright people lowers domestic production but on whether those who remain at home are damaged by these departures, given that the elite emigrants are no longer paid locally. There are two quite distinct aspects to this potential cost imposed on others. First, the hypothetical notion that the presence of highly skilled people confers an external, uncompensated benefit on others; departure of this elite thus imposes loss of these externalities on those who remain at home. Measuring external benefits is extraordinarily difficult. We do not possess enough evidence of large positive externalities from education that emigration of the highly educated should be universally decried on these grounds. Second is the loss of public spending on the education of departing migrants and, more generally, the fiscal costs resulting from a brain drain. The per student cost of tertiary education is far higher than the costs of primary or secondary education. Moreover, relative to income, the cost of tertiary education is highest in the lower-income countries, where these costs are heavily subsidized. At the point of emigrant departure, these costs have already been incurred and cannot be recovered. Nonetheless, the home state normally loses the taxes that the educated migrant would have paid in the home country. On the saving side, reductions in discretionary state spending on the migrant, and perhaps the migrant's dependents, need to be weighed, as should any tax revenues derived directly or indirectly as a result of remittances.

At least four components of a potential brain gain can be emphasized. The first three refer to the influence of the diaspora, particularly the skilled members of the diaspora, in promoting trade, international capital flows, and technology transfers to the home country. A growing body of evidence indicates that migrant stocks, and especially the more highly skilled diaspora, can play a significant role in promoting international trade. There are also instances in which a diaspora undertakes major investments in the home country, perhaps especially where such investments are welcomed and actively encouraged and where the returns are high. It remains unclear, however, whether or not such instances are common. For technology transfer, it remains unclear whether the lowest income countries can take advantage of the latest technologies from the developed nations, even if transmitted by their educated nationals from overseas. The fourth element refers to the possibility that a brain drain can induce educational expansion among remaining nationals. The notion is that private returns to education are raised by the potential to emigrate, inducing additional investment in education, yet only a portion of the additional educated population will actually emigrate.

The flow of migrants with temporary status has expanded fairly universally in recent years. Temporary Migrant Programs (TMPs) exhibit a mix of advantages and disadvantages for both the host and sending countries. In particular, three concerns about the permanence of TMPs arise. One is the turnover among migrants. Rapid turnover of the stock of employees can impose significant costs on employers. Another significant cost is in situations where specific training for the employee is critical and a less tangible cost is trust placed in employees by the employers. In some situations this is compensated by lower labor costs, either because of lower wages or limited benefit contributions, for temporary migrant workers. From the perspective of the sending countries, return migration has several attractions though some costs are also attached. The principal argument in favor of temporary migration is the greater likelihood of contact with the home area by migrants who intend to return—and therefore the tendency to remit more and perhaps to contribute in other ways as active members of a diaspora. A second purported advantage is that workers return with freshly

acquired skills, or at least enriching experiences, although here the evidence is mixed. Migrants may not re-enter work immediately on return and periods of non-employment or open unemployment can be prolonged, supported by accumulated savings and perhaps fueled by unrealistic earnings aspirations. A third advantage is whether the TMP itself proves temporary in the face of shocks to the host country. In principle, where turnover rates are high among migrant workers, it becomes easier for host states to reduce the stock of migrant workers, imposing adjustment costs on migrant sending nations in the wake of economic shocks or crises. The fourth is whether the TMP proves capable of reduction in the long term. Not all of the demands for less-skilled workers in the high-income countries exist merely because of prior legal or undocumented migration. The future of temporary migration by lower-skilled workers from = developing countries will depend on the outcome of these demands. Where outputs are tradable, protection in the high-income countries, especially related to agricultural subsidies and outsourcing must be analyzed. Some services, however, benefit from the use of low-skilled workers and are more difficult to shift offshore. Unless labor-saving technologies enable firms to dispense with low-skilled workers in these service sectors, the demand for temporary migrant workers is likely to prove permanent.

MIGRATION AND DEVELOPMENT: MIXED EVIDENCE FROM WESTERN MALI

Flore Gubert

Migration has manifold and sometimes contradictory effects on sending countries. On one hand, emigration may help to reduce tension on the sending country's labor market and give rise to wide-ranging financial transfers. On the other hand, by favoring skilled workers, it may lead to brain drain, thus slowing down development and making countries dependent on the funds they receive from their migrants. Highly involved in long distance migration to Europe and particularly France since the early 1960s, the Kayes area located in Western Mali provides a particularly interesting case study. According to recent survey data, 43.7 percent of the region's inhabitants live in remittances-recipient households.

Table 2 - Number of Malians abroad(*) and size of remittances by region, 2011

	Total Population (x1,000)	Migrant Population (x1,000)	Emigration rate (%)	Emigration rate to...					Size of remittances (x1,000€)
				Côte d'Ivoire	Other West Africa	Other Africa	France	RoW	
Kayes	1,202	83.0	6.46	0.53	1.32	1.73	2.27	0.62	64,176.3
Koulikoro	1,303	37.4	2.65	0.76	0.11	0.71	0.61	0.46	17,876.7
Sikasso	1,488	73.0	4.68	3.67	0.37	0.50	0.08	0.06	11,877.3
Segou	1,298	32.7	2.46	0.96	0.27	0.61	0.27	0.35	22,241
Mopti	1,175	41.7	3.42	1.86	0.45	0.61	0.03	0.48	9,424.4
TGK(**)	846	23.0	2.64	0.82	1.43	0.34	0.02	0.05	6,619.7
Bamako	1,257	23.3	1.82	0.41	0.13	0.43	0.67	0.19	13,811.3
Mali	8,639	314.1	3.51	1.37	0.53	0.72	0.58	0.32	146,026.7

Source: INSTAT-DIAL.
Note: (*) Figures computed on individuals aged 15 or more. (**) Timbuktu-Gao-Kidal.

Given the share of total gross income coming from abroad for those households, it would be impossible for many of them to satisfy their basic needs in the short-run if remittances were to cease. Remittance patterns are consistent with an insurance motivation. There exists a strong positive correlation between drought impacting cropping and livestock and/or shocks arising through ill health or death in the family and the amount it receives in remittances (Gubert 2002). This is only to be expected if one assumes that families send some of their members away to diversify their income and get insured against the risks they face. This insurance function has been found to have behavioral implications on recipient households. Indeed, as with many forms of insurance, problems of moral hazard seem to be at play. Family farms receiving remittances, in spite of having more capital and labor, achieve significantly lower yields than farms that do not receive remittances, without this being clearly attributable to differences in soil quality, cropping techniques or other factors (Azam and Gubert 2005). On a more positive side, the insurance function of remittances implies that recipient households are protected against situations of transitory economic hardship which has been shown to have strong detrimental effects on children education and health outcomes.

Remittances also have spillover effects through local market linkages. In the Kayes area, incomes from abroad have significantly increased the local demand for vegetables and fruits as well as the demand for housing construction. This has provided strong incentives for non-migrant households to invest in those activities, and many of them, especially those located on the Senegal River, now derive a large proportion of their income from vegetable farming. Migration and remittances have also contributed to driving up local wages and prices. This inflationary pressure creates benefits for wage earners and net suppliers of goods and services but also negatively impacts local consumers.

Migrant associations abroad also help to improve the living standards of those who stay behind by playing an active role in setting up and financing development projects in the villages back home. A recent survey conducted on a representative sample of localities in Mali, among which 62 in the Kayes area, registered 159 Home Town Associations (HTAs) created by Malians in France and 92 HTAs created by Malians elsewhere for the region (Bernard at al. 2012). While their actions were initially confined to prestigious projects such as the construction of mosques, these HTAs have gradually expanded to cover every aspect of daily life in the villages with projects ranging from hydraulics to healthcare and from basic education to cultural exchanges. More and more projects initiated by migrant associations are now

supported by other partners such as non-governmental organizations, twin towns in France, or local associations. In addition to financially supporting the construction of village infrastructures, many HTAs also contribute to the operating costs of those infrastructures. Their members' contributions are often used to pay healthcare and teaching staff as well as the drugs and vaccines delivered by dispensaries.

The main criticism leveled by local development operators is that migrant-driven projects are non-productive. The few productive investment projects they do finance are generally in urban areas and in sectors most likely to generate income (e.g. real estate, transport, or the hotel business). In rural areas, most projects are abandoned before they have time to generate any notable spillover effects on village economies. The few projects that are successful are those that facilitate the household distribution of consumer goods (e.g. general stores and grain banks) or provide support for the purchase of farming equipment. Of the several possible explanations, physical, economic and/or institutional environment play key roles. In the Kayes area, particularly poor weather conditions and inadequate or inexistent road infrastructure are strong factors that drive small farmers out of agriculture and offer no incentive to reinvest migrants' remittances in the local economy. Owing to the price of goods and inputs, the type of technology available and the conditions for market entry, investment does not always appear to be economically efficient. Migrants accordingly prefer projects in areas that are not economically productive, such as those traditionally covered by the public sector.

Accumulated evidence on the investment-oriented initiatives taken by migrants in their home country and their insurance function supports the idea that migration has a strong impact on poverty reduction in the Kayes area. Moreover, because money sent back home circulates within the region, there is no doubt that migrants in France help stabilize hundreds of thousands of individuals residing in the region. However, migrant-driven projects are criticized for their low impact on the structural causes of poverty. Though, from a longer-term perspective, putting remittances to uses that are not directly productive may strongly impact on the foundations of development such as health, education, culture or the environment.

MIGRATION AND RURAL WELFARE: THE IMPACT OF POTENTIAL POLICY REFORMS IN EUROPE

Fleur Wouterse

In order to examine the impact of continental and intercontinental migration on migrant sending households and study the effect of potential policies to limit or expand migration, a farm household model was developed and applied to data from a survey of a sample of 223 households drawn from four villages on the Central Plateau of Burkina Faso. These villages were selected according to various criteria one of which is the importance of intercontinental migration, primarily to Italy, in two of the four villages. Selection of households within the villages was random.

Households are assumed to maximize a utility function defined on consumption of goods and leisure, subject to income and time constraint. Income is derived from agricultural production using land, labor, fertilizer and capital as inputs. Labor and other tradable inputs are considered to be endogenous to this production process. Income is also result of non-farm activities where output is produced using household labor and human capital variables as inputs and the former considered endogenous to the production process. Finally, remittances are a source of income produced by allocating household time to intercontinental or continental migration. Time allocation to these two forms of migration is estimated as a function of landholdings and networks. A missing market for labor means that households are constrained in their allocation of time to these various activities and leisure by their total time endowment. In case of a missing market for labor, the shadow wage, say the additional income earned by putting additional time into farm activities, is relevant in determining the household's organization of production and its choices of consumption. The shadow full income represents the sum of income from labor used in agriculture, self-employment activities, migration and leisure valued at the previously defined shadow wage.

A benchmark that is useful for analyzing the impact of migration on development is how migration and related remittances reshape migrant-sending economies. Three cornerstones of policy that "maximize migration payoffs" have been identified namely remittances, recruitment, and return. Remittances could stimulate the local economy by enabling households to overcome production and investment constraints. Recruitment deals with the question of who migrates. Migration implies a loss of labor to the sending economy and migration "pessimists" often emphasize the "Dutch disease" effect according to which the extra income in the form of remittances, combined with the reduction in labor force, leads to higher prices for non-tradables and discourages the production of tradable goods. Returns refer to the issues of migrant return with new technologies and ideas of use both to them and to their country, or of return to retire. Migrants display a certain risk-taking behavior, which when combined with skills and capital acquired elsewhere – brain gain – can positively impact on economic development in the source economy.

Model estimation results suggest for recruitment that continental migrants are likely to originate from poorer households, i.e. households with smaller landholdings compared to households without migrants, while intercontinental migrants tend to come from wealthier households. For remittances, the destination of a migrant is a strong determinant of transfers sent back to the household with remittances from intercontinental migration being much higher compared to those from continental migrants. Migrant return cannot be studied here but a positive relationship exists between duration of absence and remittances, with migrants that have been absent for longer remitting more, perhaps due to them having become more settled in the host region.

Maximization of the impact of migration on development depends crucially on the implementation of sound immigration policies in receiving economies. The agricultural household model described above forms the basis for three simulations that explore the impact of different migration policies on the welfare of migrant-sending households. A first simulation is a Temporary Migration Program (TMP) for potential migrants from Burkina Faso to Italy. This TMP would be designed in such a way as to ensure that migration costs (e.g. travel and recruitment costs) incurred by migrants are lower than those incurred when migrating illegally. Such a TMP is expected to significantly raise the number of migrant workers legally admitted and employed in Italy with anticipated positive effects on remittances. The simulation carried out here is an increase of the allocation of labor to intercontinental migration by 10 percent. For comparative purposes a second simulation involving a 10 percent increase in the allocation of labor to continental migration is also carried out.

A third simulation is the granting of legal status expected to increase the duration of absence of the migrant. The simulation carried out here is an increase in the duration of absence by 10 percent.

Simulation results (Table 1) show that outcomes strongly differ for the different migrant destinations. A 10% increase in the allocation of labor to continental migration leads to less labor allocated to agricultural and self-employment activities (lost-labor effect); this reduced allocation of labor leads to an immediate fall in income. In response to this income loss, households reduce their consumption of goods and leisure to work more, which tempers the income loss but does not offset it. As a consequence, continental migration leads to a reduction in welfare. When prices are allowed to adjust, we see that continental migration also increases the shadow wage, which implies that the consumption of leisure becomes more expensive. Household members would thus like to work even more in agriculture and self-employment activities. However, labor is now more expensive and the household economy cannot absorb this extra labor. A higher shadow wage also means that the value of leisure increases, tempering the loss in shadow full income. However, even after the adjustment in the shadow wage, a 10 percent increase in labor allocated to continental migration would lead to a fall in income.

When, instead, the allocation of labor to intercontinental migration increases by 10 percent, the picture is completely different. The much larger remittances (remittance-effect) compensate for the lost-labor effect, so that shadow full income increases despite a loss of labor to migration and more consumption of leisure due to the income effect. The shadow wage increases significantly and labor demand in agriculture and self-employment activities falls as a consequence. However, leisure consumption also becomes more expensive, leading to an overall increase in shadow full income. When 10 percent of labor is relocated from continental to intercontinental migration, the lost-labor effect does not arise, but the resulting higher income still implies a reduction in household supply of labor. The shadow wage increase is thus significant and demand for labor falls, resulting in less income generated in agriculture and self-employment activities, tempering the increase in shadow full income.

A 10 percent increase in duration of absence increases remittances by about 2.1 percent. The household has already induced the labor loss so initial production effects do not arise. However, the income increase due to larger remittances leads households to consume more of all normal goods including leisure thereby reducing their supply of labor to productive activities, agriculture, and self-employment. Less labor allocated to agriculture raises the marginal value product of labor and consequently the shadow wage. An increase in the shadow wage implies that the consumption of leisure becomes more expensive. Household members would thus like to supply more labor to agriculture and self-employment activities. However, demand for labor does not change so that this extra supply cannot be absorbed and the value of output falls. Despite the reduction in the value of output from agriculture and self-employment activities, household welfare improves if the duration of stay abroad of a migrant increases.

Table 3- Migration simulations

	10% increase in labor going to continental migration	10% increase in labor going to intercontinental migration	10% labor reallocation from continental to intercontinental migration	10% increase in the duration of absence of a migrant
Production effects				
Agriculture (%)	-1.09	-0.02	-	-
Non-farm (%)	-1.43	-0.02	-	-
Remittances (%)	4.40	10.70	10.70	2.10
Consumption effects				
Own food (%)	-0.69	0.04	0.06	0.01
Purchased food (%)	-0.43	0.03	0.04	0.01
Nonfood (%)	-0.60	0.04	0.05	0.01
Durables (%)	-1.02	0.07	0.09	0.02
Education (%)	-0.77	0.05	0.06	0.01
Leisure (%)	-0.87	0.06	0.07	0.01
Labor supply (%)	0.73	-0.05	-0.06	-0.01
Shadow full income (%)	-0.81	0.05	0.07	0.01
EV (FCFA)	-4 918	321	406	80
Shadow wage effects				

	10% increase in labor going to continental migration	10% increase in labor going to intercontinental migration	10% labor reallocation from continental to intercontinental migration	10% increase in the duration of absence of a migrant
Shadow wage (%)	1.00	0.05	0.03	0.01
Labor supply (%)	2.78	0.14	0.09	0.02
Labor demand (%)	-0.47	-0.02	-0.01	0.00
Shadow full income (%)	-0.43	0.07	0.07	0.01
EV with shadow wage change (FCFA)	-2 638	444	426	84

Source: Author Calculations.

These simulation results show that, in contrast to continental migration, welfare effects of increased household engagement in intercontinental migration, both in terms of more migration and a longer duration of absence, are substantial. However, it needs to be borne in mind that although household welfare improves, a missing market for labor means that labor-intensive productive activities are crowded out in the short-run. In terms of policy implications, results of these simulations thus lend support to the introduction of a Temporary Migration Program (TMP) which, in addition to facilitating migration control in host economies, would, by allowing for increased engagement in intercontinental migration, improve the welfare of migrant sending households. The temporary nature of such a program would ensure that "Dutch disease" effects, where migration increases the price of tradeable good (labor) and crowds out local labor-intensive activities would be mitigated through eventual migrant return. Granting of legal status to migrants already abroad by means of a temporary work and residence permit is also recommended if the objective is to improve the welfare of migrant-sending households. Legalization of these migrants is expected to prolong their stay abroad, thereby increasing remittances while avoiding a new loss of labor and thus entailing a significant improvement in household welfare.

THE MIGRATION AND DEVELOPMENT PENDULUM: A CRITICAL VIEW ON RESEARCH AND POLICY

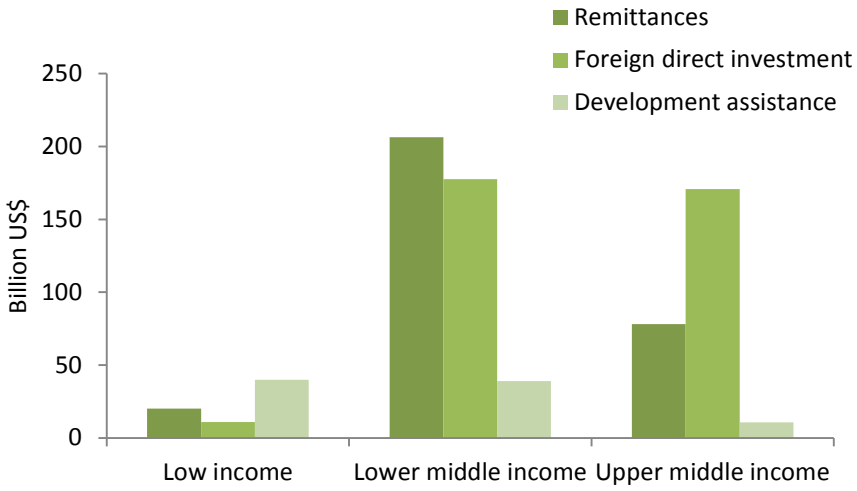
Hein de Haas

Empirical evidence supports the view that migration in and from developing countries is often a rather deliberate attempt by migrants and their families to spread income risks and to improve livelihoods. Migration is often considered a livelihood strategy and a household investment to improve its long term social and economic status. Internal and international migration can have a crucial insurance function by protecting people from the destabilizing and exclusionary effects of absent or ill-functioning markets, inequality, corruption and authoritarianism, failing state policies, and a lack of state-provided social security and basic public services such as education and health care.. Spending and investment of remittances can also have substantial positive effects on economic growth in origin communities and regions, from which (poorer) non-migrants can also benefit to a certain extent through 'multiplier' effects. From a perspective of human development that focuses on the well-being and capabilities of people, this constitutes progress and should be seen in a positive light.

However, migration and remittances cannot overcome more structural development constraints such as misguided macroeconomic policies, socioeconomic inequalities, authoritarianism, corruption, and legal insecurity. Evidence shows that the extent to which migration can play a positive (or negative) role in social, economic and political change in origin-countries depends on broad development conditions. In contexts that are unfavorable to human and social development, migration may actually reinforce existing inequalities. High poverty and inequality often mean that international migration (particularly to wealthy countries) remains a privilege of the more affluent groups in origin communities and societies. Such strong ''selection'' is reinforced by immigration policies that discriminate in favor of the skilled and against the low-skilled.

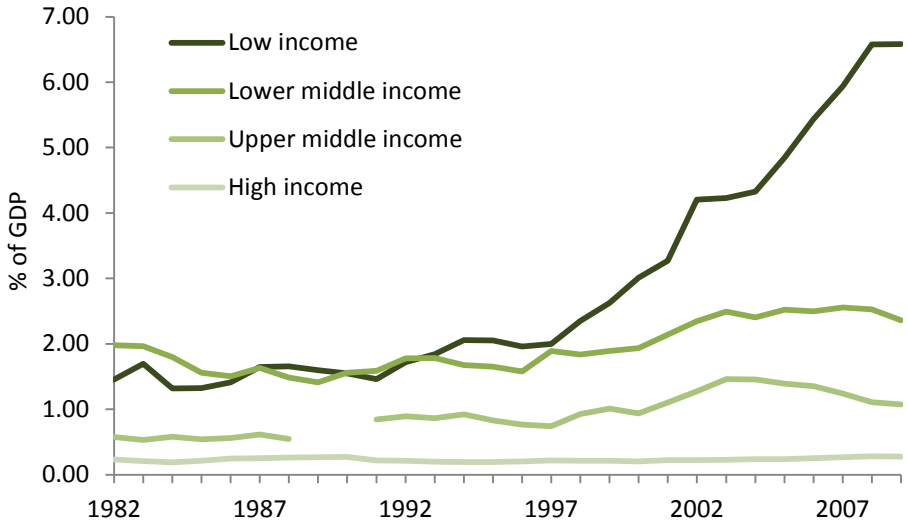
On a global level, available remittance data suggest that international remittances may sustain international inequalities particularly regarding the gap between low- and middle income countries. Figure 3 shows that remittances are particularly significant for the group of lower-middle-income countries, while for the group of low-income countries, Overseas Development Assistance (ODA) is still the most valuable resource flow. If we express remittances as a percentage of total GDP (Figure 4), a somewhat different picture emerges. While the majority of global remittances goes to middle-income countries, the poorest countries have a relatively high dependency on remittances. In fact, their remittance dependency has increased from around 2 percent of total GDP in the mid-1990s to over 6.5 percent in 2008. Although it is difficult to distill definitive causal links from this descriptive analysis, the data seems to suggest that high remittance-dependency is a feature of structurally weak economies rather than a characteristic of growing, diversifying, and strong economies.

Figure 3 - Remittances, foreign direct investment and aid flows to developing countries (2008)



Source: World Bank 2009.

Figure 4 – Remittances as a percentage of GDP, 1982-2009



Source: World Bank 2009.

In conclusion, although migrants can potentially accelerate development at home, they can neither be blamed for a lack of development nor be expected to generate development in unattractive investment environments. Migration alone cannot independently set in motion broader processes of human and economic development. The right question is not whether migration leads to certain types of development, but how differences in migration policy and investment environments explain why migration plays a positive development role in some cases and less positive or even a negative role in others.

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